

=> d his

(FILE 'HOME' ENTERED AT 15:58:40 ON 09 MAR 2003)

FILE 'HCAPLUS' ENTERED AT 15:59:39 ON 09 MAR 2003  
E FUCOSIDASE/CT  
E GALACTOSIDASE/CT

FILE 'REGISTRY' ENTERED AT 16:00:08 ON 09 MAR 2003

L1 1 S FUCOSIDASE/CN  
L2 1 S GALACTOSIDASE/CN

FILE 'HCAPLUS' ENTERED AT 16:00:50 ON 09 MAR 2003

FILE 'REGISTRY' ENTERED AT 16:01:04 ON 09 MAR 2003  
SET SMARTSELECT ON  
L3 SEL L1 1- CHEM : 2 TERMS  
SET SMARTSELECT OFF

FILE 'HCAPLUS' ENTERED AT 16:01:05 ON 09 MAR 2003  
L4 1644 S L3

FILE 'REGISTRY' ENTERED AT 16:01:05 ON 09 MAR 2003  
SET SMARTSELECT ON  
L5 SEL L2 1- CHEM : 3 TERMS  
SET SMARTSELECT OFF

FILE 'HCAPLUS' ENTERED AT 16:01:06 ON 09 MAR 2003

L6 25885 S L5  
L7 26809 S L4 OR L6  
E XANTHOMONAS/CT  
E E3+ALL  
L8 26 S L7 (L) XANTHOMONAS  
E CARBOHYDRATE/CT  
L9 16 S L8 AND PD<19951121  
L10 5 S L9 AND CARBOHYDRAT?

=> d ibib ab 1-5

L10 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:741483 HCAPLUS  
DOCUMENT NUMBER: 135:285004  
TITLE: Isolation and substrate specificity of glycosidases  
from Xanthomonas  
INVENTOR(S): Landry, David  
PATENT ASSIGNEE(S): New England Biolabs Inc., USA  
SOURCE: U.S., 43 pp., Cont.-in-part of U.S. Ser. No. 596,250.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 5  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6300113	B1	20011009	US 1995-560809	19951121
WO 9508645	A1	19950330	WO 1994-US10758	19940922 <--
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5770405	A	19980623	US 1996-596250	19960624
US 6342365	B1	20020129	US 1999-257153	19990224
US 6458573	B1	20021001	US 1999-428979	19991028
US 2002072104	A1	20020613	US 2001-859698	20010517
US 6423525	B2	20020723		
US 6358724	B1	20020319	US 2001-883800	20010618
US 2002137176	A1	20020926	US 2001-3136	20011115
PRIORITY APPLN. INFO.:			WO 1994-US10758	W 19940922
			US 1996-596250	A2 19960624
			US 1993-126174	A 19930923
			US 1995-560809	A3 19951121
			US 1999-428979	A3 19991028

AB Substantially pure glycosidases capable for cleaving selected glycosidic bonds have been described including glycosidases isolated from Xanthomonas and recombinant glycosidases. Purifn. and characterization of glycosidases from Xanthomonas is described. Substrate specificity of isolated enzymes have been identified for GlcNac.beta.1-X, Gal.alpha.1-3R, Gal.alpha.1-6R, Gal.beta.1-3R, Fuc.alpha.-2R, Fuc.alpha.1-3R, Fuc.alpha.1-4R, Man.alpha.1-2R, Man.alpha.1-3R, Man.alpha.1-6R, Man.beta.1-4R, Xyl.beta.1-2R, Glc.beta.1-4R, and Gal.beta.1-4R, where R is an unspecified monosaccharide, providing improved capability for selectively cleaving a glycosidic linkage in a **carbohydrate** substrate and for forming modified **carbohydrates**.

REFERENCE COUNT: 222 THERE ARE 222 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:427723 HCAPLUS  
DOCUMENT NUMBER: 129:92251  
TITLE: Isolation and composition of novel glycosidases  
INVENTOR(S): Wong-Madden, Sharon T.; Guthrie, Ellen P.; Taron, Christopher H.; Landry, David; Guan, Chudi; Robbins, Phillips W.  
PATENT ASSIGNEE(S): New England Biolabs, Inc., USA  
SOURCE: U.S., 41 pp., Cont.-in-part of U.S. Ser. No. 126,174, abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 5  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5770405	A	19980623	US 1996-596250	19960624
WO 9508645	A1	19950330	WO 1994-US10758	19940922 <--

W: JP, US

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

US 6300113	B1	20011009	US 1995-560809	19951121
US 6342365	B1	20020129	US 1999-257153	19990224
US 6458573	B1	20021001	US 1999-428979	19991028
US 2002072104	A1	20020613	US 2001-859698	20010517
US 6423525	B2	20020723		
US 6358724	B1	20020319	US 2001-883800	20010618
US 2002137176	A1	20020926	US 2001-3136	20011115

PRIORITY APPLN. INFO.:

US 1993-126174	B2	19930923
WO 1994-US10758	W	19940922
US 1995-560809	A3	19951121
US 1996-596250	A2	19960624
US 1999-428979	A3	19991028

AB Purified N-acetylglucosaminidase and .alpha.1-3,6 **galactosidase** endogenous to **Xanthomonas** are described. Substrate specificity of isolated enzymes was identified from GlcNAc.beta.1-x and Gal.alpha.1-3R, Gal.alpha.1-6R, where R is an unspecified monosaccharide, providing improved capability for selectively cleaving a glycosidic linkage in a **carbohydrate** substrate and for forming modified **carbohydrates**.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:712088 HCAPLUS

DOCUMENT NUMBER: 123:137433

TITLE: Isolation and characterization of glycosidases from **Xanthomonas** and their use in selective cleavage of **carbohydrates**

INVENTOR(S): Wong-Madden, Sharon Teresa; Guthrie, Ellen Paul; Landry, David; Taron, Christopher Henry; Guan, Chudi; Robbins, Phillips Wesley

PATENT ASSIGNEE(S): New England Biolabs, Inc., USA

SOURCE: PCT Int. Appl., 99 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9508645	A1	19950330	WO 1994-US10758	19940922 <--
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 726964	A1	19960821	EP 1994-929309	19940922
R: DE, FR, GB				
JP 09508783	T2	19970909	JP 1994-509944	19940922
US 6300113	B1	20011009	US 1995-560809	19951121
US 5770405	A	19980623	US 1996-596250	19960624
US 6342365	B1	20020129	US 1999-257153	19990224
US 6458573	B1	20021001	US 1999-428979	19991028
US 2002072104	A1	20020613	US 2001-859698	20010517
US 6423525	B2	20020723		
US 6358724	B1	20020319	US 2001-883800	20010618
US 2002137176	A1	20020926	US 2001-3136	20011115

PRIORITY APPLN. INFO.:

US 1993-126174	A	19930923
WO 1994-US10758	W	19940922
US 1995-560809	A3	19951121
US 1996-596250	A2	19960624
US 1999-428979	A3	19991028

AB This invention is directed to compns. and methods that satisfy the need for novel, substantially pure glycosidases having identified substrate specificities. Substantially pure glycosides isolated from **Xanthomonas** and recombinant glycosidases are described. Specific glycosidases which are described include exoglycosidase, **fucosidase**, **galactosidase**, N-acetylglucosaminidase, glucosidase, xylosidase, and mannosidase. The substrate specificity of

isolated enzymes have been identified from GlcNac.beta.-1-X, Gal.alpha.-1-3R, Gal.alpha.-1-6R, Gal.beta.-1-3R, Fuc.alpha.-2R, Fuc.alpha.-1-3R, Fuc.alpha.-1-4R, Man.alpha.-1-2R, Man.alpha.-1-3R, Man.alpha.-1-6R, Man.beta.-1-4R, Xyl.beta.-1-2R and Glc.beta.-1-4R, where X is an unspecified C atom on an adjacent unspecified monosaccharide and R is the unspecified monosaccharide occurring within an oligosaccharide. These enzymes provide improved capability for selectively cleaving a glycosidic linkage in a **carbohydrate** substrate and for forming modified **carbohydrates**.

L10 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:421195 HCAPLUS  
DOCUMENT NUMBER: 122:259384  
TITLE: Purification and characterization of novel glycosidases from the bacterial genus *Xanthomonas*  
AUTHOR(S): Wong-Madden, Sharon T.; Landry, David  
CORPORATE SOURCE: New England Biolabs, Inc., Beverly, MA, 01915-5510, USA  
SOURCE: Glycobiology (1995), 5(1), 19-28  
CODEN: GLYCE3; ISSN: 0959-6658  
PUBLISHER: Oxford University Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Enzymic anal. of oligosaccharides using exoglycosidases has become a powerful tool for detg. the sequence and structure of sugar chains. The principal limitation to these methods has been the lack of highly purified and well-characterized enzymes. Using fluorescently labeled **carbohydrate** substrates and TLC, we have developed a method to identify glycosidases with novel specificities. This screening method led to the discovery that bacteria of the genus *Xanthomonas* are a rich source of exoglycosidases. From *Xanthomonas manihotis*, eight novel exoglycosidases have been isolated and characterized. A novel .beta.-N-acetylglucosaminidase has been purified that, unlike those previously described, will cleave N-acetylglucosamine without cleaving N-acetylgalactosamine residues. A novel .beta.-**galactosidase** has been isolated that preferentially hydrolyses .beta.(1.fwdarw.3) galactosyl linkages. Three .alpha.-mannosidases have been isolated that serve as useful reagents in the anal. of high-mannose oligosaccharide structures: .alpha.1-3,6 mannosidase, .alpha.1-6 mannosidase and .alpha.1-2,3 mannosidase. An .alpha.1-3,6 **galactosidase** has been purified that does not hydrolyze terminal .alpha.1-4 galactose residues. Two **fucosidases**, .alpha.1-3,4 **fucosidase** and .alpha.1-2 **fucosidase**, are similar to enzymes purified from other sources. Together, these glycosidases provide powerful reagents for detg. the sequence of complex **carbohydrates**. Equally important is their usefulness in selectively removing specific sugar residues and thereby creating novel **carbohydrates** for analyzing the biol. roles of oligosaccharides.

L10 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1980:635232 HCAPLUS  
DOCUMENT NUMBER: 93:235232  
TITLE: .beta.-Galactosidase activity in cultured cotton cells (*Gossypium hirsutum* L.): a comparison between cells growing on sucrose and lactose  
AUTHOR(S): Mitchell, Earl D.; Johnson, Becky B.; Whittle, Tina  
CORPORATE SOURCE: Dep. Biochem., Oklahoma State Univ., Stillwater, OK, 74078, USA  
SOURCE: In Vitro (1980), 16(10), 907-12  
CODEN: ITCSAF; ISSN: 0073-5655  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Cotton callus and suspension cultures, developed from a cotton variety susceptible to *Xanthomonas malvacearum*, were grown on media that contained 3% sucrose, 3% lactose, 3% maltose, 3% fructose, and 3% glucose. All cells were maintained on a medium with sucrose as the **carbohydrate** and subsequently transferred to media contg. the above **carbohydrates**. Sucrose was the best C source for a high growth rate; however, cells growing on glucose, which was almost as good

on sucrose, and cells growing on lactose did not turn brown when they reached the stationary phase of growth. A crude ext. from callus tissue growing on lactose had a 5-fold increase in **.beta.-galactosidase** (EC 3.21.23) as compared with the ext. from callus tissue growing on sucrose. When callus tissue growing on lactose was transferred to medium contg. sucrose, **.beta.-galactosidase** decreased to the level in cells maintained on sucrose. Callus cells growing on a lactose medium showed staining when treated with 5-bromo-4-chloro-3-indolyl **.beta.-D-galactopyranoside**, in which very heavy granular stains appeared. Cells growing on sucrose did not show the histochem. staining. **.beta.-Galactosidase** is induced in cotton callus tissue that has been transferred from a medium contg. sucrose to a medium contg. lactose.

# WEST Search History

DATE: Sunday, March 09, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB; PLUR=YES; OP=ADJ</i>			
L13	L12 and l8	2	L13
L12	L11 and @ad<19930923	16	L12
L11	L10 and carbohydrat\$7	96	L11
L10	L9 and (xanthomonas)	232	L10
L9	fucosidase or galactosidase	18948	L9
L8	L7 or l6 or l5 or l4 or l3 or l2 or l1	6258	L8
L7	((((435/252.1)!.CCLS.) )	1459	L7
L6	((((435/243)!.CCLS.) )	1063	L6
L5	((((435/201)!.CCLS.) )	374	L5
L4	((((435/200)!.CCLS.) )	623	L4
L3	((((435/195)!.CCLS.) )	481	L3
L2	((((435/183 )!.CCLS. ) )	2414	L2
L1	((435/41 )!.CCLS. )	564	L1

END OF SEARCH HISTORY

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 16 of 16 returned.**☐ 1. Document ID: US 5912151 A

L12: Entry 1 of 16

File: USPT

Jun 15, 1999

US-PAT-NO: 5912151

DOCUMENT-IDENTIFIER: US 5912151 A

TITLE: Preparation of xanthan gum

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 2. Document ID: US 5631151 A

L12: Entry 2 of 16

File: USPT

May 20, 1997

US-PAT-NO: 5631151

DOCUMENT-IDENTIFIER: US 5631151 A

TITLE: Melanin production by transformed organisms

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 3. Document ID: US 5449767 A

L12: Entry 3 of 16

File: USPT

Sep 12, 1995

US-PAT-NO: 5449767

DOCUMENT-IDENTIFIER: US 5449767 A

TITLE: Modified polynucleotides and methods of preparing same

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 4. Document ID: US 5397697 A

L12: Entry 4 of 16

File: USPT

Mar 14, 1995

US-PAT-NO: 5397697

DOCUMENT-IDENTIFIER: US 5397697 A

TITLE: Identification of plant-responsive genes of bacteria

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

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└ 5. Document ID: US 5386027 A

L12: Entry 5 of 16

File: USPT

Jan 31, 1995

US-PAT-NO: 5386027

DOCUMENT-IDENTIFIER: US 5386027 A

TITLE: Carbohydrate receptor for bacteria and method for use thereof

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc
Image											

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└ 6. Document ID: US 5340743 A

L12: Entry 6 of 16

File: USPT

Aug 23, 1994

US-PAT-NO: 5340743

DOCUMENT-IDENTIFIER: US 5340743 A

TITLE: Xanthan gum-producing strain of xanthomonas

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc
Image											

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└ 7. Document ID: US 5338841 A

L12: Entry 7 of 16

File: USPT

Aug 16, 1994

US-PAT-NO: 5338841

DOCUMENT-IDENTIFIER: US 5338841 A

TITLE: DNA segments controlling production of xanthan gum

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc
Image											

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└ 8. Document ID: US 5328824 A

L12: Entry 8 of 16

File: USPT

Jul 12, 1994

US-PAT-NO: 5328824

DOCUMENT-IDENTIFIER: US 5328824 A

TITLE: Methods of using labeled nucleotides

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc
Image											



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└ 9. Document ID: US 5279961 A

L12: Entry 9 of 16

File: USPT

Jan 18, 1994

US-PAT-NO: 5279961

DOCUMENT-IDENTIFIER: US 5279961 A

TITLE: Xanthomonas campestris strain for production of xanthan gum

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KVMC	Draw Desc
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└ 10. Document ID: US 5268463 A

L12: Entry 10 of 16

File: USPT

Dec 7, 1993

US-PAT-NO: 5268463

DOCUMENT-IDENTIFIER: US 5268463 A

TITLE: Plant promoter .alpha.-glucuronidase gene construct

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KVMC	Draw Desc
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└ 11. Document ID: US 5262399 A

L12: Entry 11 of 16

File: USPT

Nov 16, 1993

US-PAT-NO: 5262399

DOCUMENT-IDENTIFIER: US 5262399 A

TITLE: Compositions and methods for the control of flukes

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KVMC	Draw Desc
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└ 12. Document ID: US 5173187 A

L12: Entry 12 of 16

File: USPT

Dec 22, 1992

US-PAT-NO: 5173187

DOCUMENT-IDENTIFIER: US 5173187 A

TITLE: Method for control and monitoring of activated sludge in a biological clarification system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KVMC	Draw Desc
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## └ 13. Document ID: US 4711955 A

L12: Entry 13 of 16

File: USPT

Dec 8, 1987

US-PAT-NO: 4711955

DOCUMENT-IDENTIFIER: US 4711955 A

TITLE: Modified nucleotides and methods of preparing and using same

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KMOC	Draw Desc
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## └ 14. Document ID: US 4690891 A

L12: Entry 14 of 16

File: USPT

Sep 1, 1987

US-PAT-NO: 4690891

DOCUMENT-IDENTIFIER: US 4690891 A

TITLE: Method and the microorganism and enzyme used therein for degrading the xanthan molecule

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KMOC	Draw Desc
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## └ 15. Document ID: US 4104123 A

L12: Entry 15 of 16

File: USPT

Aug 1, 1978

US-PAT-NO: 4104123

DOCUMENT-IDENTIFIER: US 4104123 A

TITLE: Process of producing a "xanthemonas-type" polysaccharide

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KMOC	Draw Desc
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## └ 16. Document ID: US 4010078 A

L12: Entry 16 of 16

File: USPT

Mar 1, 1977

US-PAT-NO: 4010078

DOCUMENT-IDENTIFIER: US 4010078 A

TITLE: Device for use in the identification of microorganisms

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Image									

KMOC	Draw Desc
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Terms	Documents
L11 and @ad<19930923	16

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